MORPETH RURAL DISTRICT COUNCIL.

ANNUAL REPORT

(FOR THE YEAR 1906)

OF THE

MEDICAL OFFICER OF HEALTH

(J. P. PHILIP, M.D., D.H.P.,

Fellow of the Royal Institute of Public Health),

INCLUDING THE

REPORT OF THE SANITARY INSPECTOR

(ANDREW ADAMS, A.S.I.)

Morpeth:

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1907.

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MORPETH RURAL DISTRICT COUNCIL.

Annual Report on the Public Health and Sanitary Condition of the Morpeth Rural District in 1906.

Mr. CHAIRMAN AND GENTLEMEN,-

I have the honour to present my Annual Report for the year 1906, which is drawn out as recommended by the Local Government Board.

Physical Features of the District.—For the benefit of those who do not know the district I may say that it extends over 74,748 acres of land, and that it runs east and west from the sea—some 14 miles, mainly between the rivers Coquet and Wansbeck. The urban districts of Ashington and Newbiggin-by-the-Sea cut into the east centre. There is every facility for good drainage, except in the north eastern part which is very little above the sea level. The water supply is in most parts good. The Colliery villages depend almost entirely on the water tapped in their workings, whilst the Agricultural area is fairly well supplied by natural springs, and those on the line of supply to the County Asylum are fortunate in having an excellent service. That the large colliery villages should lie towards the seaboard is fortunate, thus saving any fear of serious contamination to the main watercourses.

Divisions of the District.—As formerly, I have divided the district into two divisions, Colliery and Agricultural. The highway from Morpeth to Felton almost exactly separates the one from the other. For statistical purposes the County Asylum forms a community by itself.

Industries.—The chief industries, as indicated by the divisions, are Colliery and Agricultural. The two Woollen Factories, for which registers are kept, now provide work for only some half-dozen, and air space for many more. They meet all the requirements stated by the Local Government Board. Were farmers and gardeners, who are themselves accustomed to agricultural smells, to exercise a little more consideration for the public, in placing manure heaps—especially town manure—further from public roads, a great many complaints would be avoided. An intolerable nuisance has been created by the number of carcases of dogs and other animals imported with the town manure from Newcastle and Shields.

The Collieries are in a prosperous condition, and most of the pits are well ventilated, but some are not sufficiently drained, so that the men are often working not only on a damp bottom, but sometimes in water, consequently rheumatism and its allied diseases are common amongst the miners.

Population.—I have calculated the population at 17,400. The Agricultural population is practically at a stand still, and is estimated at 4,500. The Colliery population has increased. Thirty new houses have been built, and the increase of births over deaths gives an estimated increase of over 460, but owing to changes in the Newcastle boundary, the number of inmates at the Asylum has beed reduced, so that the population of the Colliery area may be placed at 12,900.

Housing.—With a few exceptions, the Colliery population is well housed, the most notable exceptions being Chevington Wood Houses where action has been taken. The Woodside Farm Cottages have recently been improved and rendered fit for habitation. Some of the old houses at Broomhill, Pegswood, and North Seaton are not up to present day requirements. There have been a few cases of overcrowding near Newbiggin-by-the-Sea, at Chevington Wood Houses, Broomhill, and Chevington Drift.

Improvements.—A fair amount has been done in the way of

improving farm and village drainage. At View Law, Fenrother, Longhorsley Village, Needless Hall, Middleton, Netherwitton, Cambo, Ulgham, Hepscott, and Woodside drains and privy accommodation have been supplemented and improved. Many defective houses, ashpits, and drains have been repaired. A Sewerage area has been created at Widdrington Colliery, including the Bus Row, plans have been passed, and the Council will itself carry out the work.

There still remains much to be done. No steps have been taken to improve the condition of the Wood Houses at Chevington, in my opinion closure is the only means of solving the difficulty. The houses are not worth much outlay, as the water supply is inadequate and there is no drainage.

At the Brick Row an improvement has been made by the addition of another septic tank.

Improvements are required still at Tritlington, Linton, Hepscott, and Broomhill in matters of defective drainage.

Scavenging.—The scavenging has much improved in the district, more especially where carried out by contract, but your Sanitary Inspector has to be constantly reminding private owners of their duty in cleansing their ashpits and privies, as shown by the numbes of notices served on them. A great improvement has been effected by the paving of the back streets at Red Row. Formerly, during wet weather, it was almost impossible to carry out cleansing of the back premises.

Dairies, etc.—Dairies, milk shops, cowsheds, and slaughter-houses have received every attention. A good many alterations have been carried out; several new licenses have been granted, whilst a few applications have been refused until the conditions conformed to your bye-laws. Cowsheds at Broomhill had to be condemned, and sweeping alterations made. Multiplication of small dairies is not advisable, stricter supervision is required. Special rules for milk shops would be of value, advising cleansing

of the hands of milkers, as well as the udders of cows, regulations as to light in byres, and fresh air to cows. Were this done, we would have less Tuberculosis.

Schools.—Of all places, schools require good ventilation, and plenty of air space. There are excellent schools at most of the collieries. At Broomhill (North and South), and Pegswood, and Widdrington the school buildings are excellent, and at most of the other collieries they are good. It is not the case in the Agricultural district, good buildings are there the exception, and require improving.

VITAL STATISTICS.

In considering the Vital Statistics of your district it is important to remember that the County Asylum drawing patients from all parts of the county, and with a very high death rate, is in your district. It is necessary for general statistics to give the total, but for local interest I have also given statistics, minus the Asylum, for the Rural District.

Birth Rate.—The Birth Rate is somewhat lower than the unusually high rate of last year. The numbers are 491 as compared with 497 in 1905 and 474 in 1904. This gives an annual rate of 28.8 per 1,000 and compares favourably with 26.3 which is the rate for all England Rural Districts. During the period (5 years) for which I have the statistics, there has been a steady increase in the Birth Rate, this is the reverse of what holds all over the country.

Death Rate.—The total number of deaths during the year is 303, and of those 78 died in the Asylum, only one of those belonged to the Morpeth Rural District, consequently the number of deaths in the Rural District was 227 including one who died in the Morpeth Cottage Hospital. This is very much lower than during the previous two years. The total death rate (including the Asylum) is 17.4 per 1,000 for the year, and excluding the Asylum, the death rate for your Rural District is 13.1 per 1,000. In 1905, the figures stood at 21.6 and 14.6 respectively. If accidental deaths and premature births are deducted (amounting to 16) we get a disease

death rate of 12 per 1,000 for your Rural District. In the Colliery locality there were 196 deaths and in the Agricultural 31, which yield respectively a death rate of 15.1 and 6.8 per 1,000. That for England and Wales is 15 for 1906. The death rate for the different months in the year per 1,000 as recorded in my monthly reports is as follows(excluding the Asylum):—

January	• • •	11.4	July		15.5
February		16	August		6.5
March		14.1	September		18
April		14.2	October		14.6
May	• • •	11.1	November		10.6
June	* * *	18.8	December	• • •	8.3

Infantile Death Rate.—There is a still further reduction this year in the Infantile death rate. Under One year 66 deaths, which is equal to 134 per 1,000 children born, against 140 in 1905 and 195 in 1904.

Tubercular diseases again show a reduction, in 1905 the number was 32; during 1906, there were only 27 cases, which is equal to 1.5 per 1,000. From Phthisis Pulmonalis the rate is 8 per 1,000. From all Respiratory Diseases including Phthisis Pulmonalis, 2.6, as against 3 per 1,000 in the previous year. For clearness, I have tabulated the most important diseases and their rates per 1,000. It shows an all-round improvement as compared with the previous year.

		ı	905.	1906.		
DISEASES.		Number of Cases.	Rate per 1,000.	Number of Cases.	Rate per 1,000.	
Phthisis Pulmonalis		21	1*2	15	•8	
All Tubercular Diseases	• • • •	32	1.8	27	1.2	
Respiratory Diseases (including P	hthisis)	52	3	46	2'6	
Cancer and all Malignant Growtl	ns	13	.76	10	*5	
Heart Diseases		25	1.4	24	1.3	
Infectious Diseases		18	.10	17	.09	

INFECTIOUS DISEASES.

There is a very marked dimination in the number of Infectious cases during the year, but this is chiefly owing to the reduction in the number of cases of Scarlet Fever and to a less, but more gratifying extent, in there being fewer cases of Enteric Fever. On the other hand there has been a serious increase, as in other parts of the country, in Diphtheria, the greater number being in the Agricultural District.

Diphtheria.—During the year 36 cases of this disease have It made its appearance first amongst the school children The school was closed and several serious defects remedied. Unfortunately, it was again carried by a convalescent child into the Cambo district, and the school here also had to be Nothing was found wrong in the sanitary arrangements here, the water supply is excellent. In all, 20 cases occurred in these two parishes, two of which proved fatal. The school accommodation at Hartburn is inadequate; there is no water supply, and the sanitary arrangements are unsatisfactory. The use of a common drinking vessel is a great source of danger in Diptheria, but it is difficult to see how it can be avoided in schools. Once started, the disease was carried from one to the other by direct contact. In the Colliery district, 16 cases, and one of membranous croup, occurred, but never epedemic. The cases have been scattered over almost all the villages, and the cause in many has been difficult to trace. Sore throats have been prevalent during the year, and I have no doubt many slight cases have passed unnoticed, but have distributed the germs of infection.

Erysipelas.—Eight cases of Erysipelas have been reported, but all quite isolated and calling for no special remarks

Scarlet Fever.—There has been a remarkable diminution in the number of cases of Scarlet Fever. Only 35 cases have been reported, as against 87 in the previous year. Most have been slight, and only two proved fatal from complications. Again, the

preponderance has been in the Agricultural districts. It gained a footing amongst the children attending Netherwitton school, and chiefly from want of proper disinfection of clothes, and some carelessness in isolating, was not eradicated for some time. From Netherwitton it spread to Hartburn, and on account of its presence at the schoolhouse, school closure became necessary there also. An epidemic was thus avoided. At Cresswell, two families were affected, but by preventing children from that village attending the school, the disease did not spread. At no other place did it become epidemic, but sporadic cases were reported from Broomhill, Chevington Drift, Pegswood, Longhorsley (where closure of the school prevented an epidemic), and from the vicinity of Morpeth.

Typhoid or Enteric Fever.—I have no more pleasing fact to report than the steady decline of cases of this disease, and chiefly in the Colliery districts. Fourteen cases have occurred, but only 11 really in your district, the other 3 being in the Asylum. The places affected were as follows (where no number follows, only one case occurred): - Hartburn, Meldon, Tritlington, Hepscott, Pegswood (2), Swarland Terrace (3), East Chevington, and North Seaton. It is difficult to trace the cause of the isolated cases at Hartburn, Meldon, and North Seaton, but in the other cases the cause was more or less evident. In all the cases careful inspections were made, and where defects were found, these were put right. Disinfection of all excrement and clothes was strictly observed, cleansing of privies and ashpits was specially enforced. Your Inspector has been most particular as to those things, as also with the after disinfection of houses and drains, with the gratifying result that the number of cases has been greatly reduced. it has been deemed necessary for the public safety, and the life of the patient, a nurse has been engaged. I feel sanguine that if those precautions are kept up we may still further reduce this disease. It is almost impossible in a rural district so extensive as yours to remove all those serious cases to an isolation hospital which is some 20 miles from the most distant parts of the district, and is only provided for Small-pox.

If it were necessary to provide nursing and isolation, I have already suggested the method of having three Cottages, situated near Broomhill, Pegswood, and North Seaton, and furnished from the hospital. Nurses could be employed as required. The cases could then be attended by their own doctors.

Other Infectious Diseases.—Measles has been epidemic in several districts, and necessitated school closure at North Broomhill and North Seaton. Whooping Cough has been present, but not to any great extent. Five deaths are attributed to the former, and 3 to the latter. Chicken-pox also broke out at Hartburn school, but by good furtune the Christmas holidays checked further spreading of the disease. Epidemic Diarrhæa has affected your district to a much less degree than usual. This, I hope, may be due to better knowledge and greater care in feeding infants. I am glad to see the more frequent use of tubeless feeding bottles and greater care in cleansing them. It would be of great service were the makers to attach instructions as to how best to clean the bottles.

General Remarks.—There is a general improvement in every way, and in every locality. The death rate is much reduced from the previous year, there are fewer infectious diseases and the birth rate is higher, although this is general, it is gratifying to notice the improvement in the Broomhill district. In my last report I drew attention to the high death rate in that district, and expressed the hope that with its new sewerage and general improvements, it might in future show a reduction. In 1905, the death rate was 18.8 per 1,000, in 1906, it was reduced to 13. Pegswood has also made improvements in sewerage, and dwelling houses, and its death rate is considerably reduced, having fallen from 15.2 to 11.0 per 1,000. North Seaton has done little to improve its ashpits, and the surface drains are very imperfect in places, near house doors especially, and (I do not say in consequence, because it had the misfortune to be visited by a very fatal epidemic of measles) the death rate has risen from 16.7 to 27.4—much the highest in the district. The Agricultural locality has a very low death rate, 6.8 per 1,000,

in spite of epidemics of Diphtheria, Scarlet Fever, Measles, and Chicken-pox. I would again draw your attention to the state of most of the rural schools, which favours the spreading of infectious diseases. I would suggest, when so much is being promised for schools, what an immense advantage it would be to the children, —who, in many cases walk 3 miles to school,—were a place provided where, in wet or stormy weather, they could eat in shelter, instead of sitting on the road side, or in the badly ventilated class-room, their midday meal which they carry with them, or where they might be provided with a plate of soup at a nominal cost. I am sure the health of the children would be very greatly improved if this could So much is given free that surely parents could be carried out. pay the small amount this would cost. By improving the health of our children, we improve the quality of our nation, but by providing everything free, we demoralize and pauperize the people.

J. P. PHILIP.

TABLE 1.-Vital Statistics of Whole District during 1906 and previous Years.

Nett Deaths at all ages.	Rate*	13	12.6	17.9	14.6	13·1
Nett De	Number	205	205	296	250	227
Deaths of Residents registered in Public	Institutions beyond the District.	4	က	67	က	12
Deaths of Non-residents registered in Public	H	94	06	91	121	2.2
Total Deaths in Public	in the District.	94	92	92	123	78
at all es.	Rate*	19	18	23.5	21.6	17.4
Deaths at all ages.	Number	295	292	388	368	303
eaths under 1 year of age.	Number Births Number regis'rd.	105	121	195	140	134
Deaths under year of age.	Number	45	55	93	02	99
Births.	Rate*	9.42	6.92	28.7	29.2	28.2
Bir	Number	428	437	474	497	491
Population estimated to	each Year.	15,500	16,230	16,500	17,000	17,400
YEAR.		1902	1903	1904	1905	1906

*Rate calculated per 1,000 of the population.

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Total population of all ages Number of inhabited houses	: :	: :	•	•	14,832	at Census of 1901
oer	:	:	: :		5. 5. 5.	

TY.	Deaths under I year,	d.	က	-1 1	ಣ	9	∞	
AGRICULTURAL LOCALITY.	Deaths at all ages.	0	36	45	41	34	31	
ULTURA	Births Registered.	p	20	80	7.5	86	53	
AGRIC	Population estimated to middle of each year.	e	4,420	4,459	4,500	4,500	4,500	
	Deaths under I year.	d.	7 1	49	06	64	85	
Colliery Locality.	Deaths at all Ages.	o	165	160	555	214	196	
LIERY L	Births Registered.	q	358	357	406	442	439	
Cor	Population estimated to middle of each year,	α	11,080	11,743	12,000	12,500	12,900	
ES.		<u>`</u>	•	•	•	•	•	
NAMES OF LOCALITIES.	YEAR.		•	•	:	:	•	
NA	X		1902	1903	1904	1905	1906	

TABLE III.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1906.

LOCALITY.		Asylum.	1 8 1) O
NOTIFIED IN EACH LOCALITY.		Agri- cultural.	20 21 33	46
NOTIFIED		Colliery.	16 17 14 8	-
		65 and upward	61	
STRICT.	rô.	25 to 65-	9 1 1	18
TOLE DE	-Year	15 to	6 2	∞
CASES NOTIFIED IN WHOLE DISTRICT.	At Ages—Years.	ŏ to 15.	29 1 30 1	61
NOTIFIE	Ý	1 to 5.	H H	ಣ
CASES 1		Under 1.		0
		At all Ages.	36 35 1 1	95
	Notifiable Diseases		Small-pox Cholera Diphtheria Membranous croup Erysipelas Scarlet fever Typhus fever Enteric fever Relapsing fever Continued fever Plague	Totals

TABLE IV.
CAUSES OF, AND AGES AT, DEATH DURING YEAR 1906.

Cause of Death.	I	Dist:		Subj	oined	Ages.		long Loca	in or beding to alities ages);	Total Deaths in Public Insti'tns in the District.
Cado of Death.	All ages.	Under 1 Year.	l and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Colliery	Agri- cultural	Total D Public I in the I
Small-pox Measles Scarlet fever Whooping-cough		3 2	$\frac{2}{2}$					5 1 3	1	
Diphtheria and membranous croup		1	2	1				2	2	٠
Fever Typhus Enteric othercontinued	2				2			1	1	1
Epidemic influenza Cholera Plague	1					1		1		
Diarrhœa Enteritis Puerperal fever Erysipelas	13 12	6 11	6				1	10 12	3	1 1
Other septic diseases Phthisis Other tubercular di-	3 15			$\begin{bmatrix} 1 \\ 2 \end{bmatrix}$	0 6	1 7	1	3 13	2	9
seases Cancer, malignant di-	12	4	4	Ì	2		1	11	1	3
sease	10 12 17 1	3 7	2 3		1 1	$\begin{bmatrix} 6 \\ 2 \\ 5 \\ 1 \end{bmatrix}$	$\begin{bmatrix} 4 \\ 4 \\ 1 \end{bmatrix}$	$egin{array}{c} 9 \\ 12 \\ 15 \\ 1 \end{array}$	$\frac{1}{2}$	1
piratory organs Alcoholism \ Cirrhosis liver \int \cdots	1		1					1		2
Venereal diseases Premature birth Diseases and accidents	12	12						10	2	
parturition	$\begin{bmatrix} 1 \\ 25 \\ 3 \\ 1 \end{bmatrix}$					$\begin{array}{c c}1\\14\\2\\1\end{array}$	11	$\begin{array}{c} 1\\20\\3\\1\end{array}$	õ	15 2
All other causes	71	19	4	1	10	14	33	61	10	38
. All causes	226	68	28	5	13	56	56	196	30	77

N.B.—In recording the facts under the various headings of Tables I, II, III, and IV, attention has been given to the notes on the tables.

Deaths from stated Causes in Weeks and Months under One Year. TABLE V.-Infantile Mortality During the Year 1906.

Total deaths under One Year.	99	000000	10 1	12000
.sdanoM 21-11		-		
.sdranoM 11-01			4	 -
9-10 Months.		-	-	
.sdtnoM e-8			6.1	
7-8 Months.			-	A Visitation
6-7 Months,				
5-6 Months.				
4-5 Months.			¢3	
3-4 Months.	٠		_	
2-3 Months.				
1-2 Months.	em 4			-
Total under I month.		·	_	% ²
3-4 №еекз.			7	H 03
2-3 Wеекs.				ಣ
1-2 Weeks.				m
				2 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1-2 Weeks.	Certified	Small-pox Chicken-pox Measles Scarlet Fever Diphtheria: Croup	Diarrhea, all forms Enteritis, Muco- enteritis Gastro-enteritis Gastritis, Gastro- intestinal catarrah)	

TABLE V.—continued.

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	7-1	4
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		62
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-	П П	70
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	-	က
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iv. Tuber- culous Diseases Tabes Mesenterica Other Tuberculous Diseases Other Tuberculous	Erysipelas Syphilis Rickets Meningitis (not Tuberculous) Causes. Bronchitis Laryngitis Pheumonia Suffocation, over- lying Other Causes	

Births in the year $\left\{\begin{array}{l} \text{legitimate} \\ \text{illegitimate} \end{array}\right\}$ 491 Dea

Deaths in the Year of $\{legitimate infants \}$ 66

Deaths from all Causes at all Ages...227.

Sanitary Surveyor's Report.

TO THE CHAIRMAN AND MEMBERS,-

Gentlemen,—I have much pleasure in presenting herewith my Annual Report for the year ending 31st December, 1906,

With the exception of the matters contained in the "Abatement Order" served upon this Council by the County Council of Northumberland, relating to the Sanitary condition of Widdrington Colliery Village, and the Wood Houses at West Chevington, nothing of an exceptional nature has occurred in the sanitary work of the District, calling for the execution of the powers conferred upon the Council by the various Sanitary Acts of Parliament.

At the same time, in some cases, this power had to be resorted to, to the extent of serving of legal statutory notices for the abatement of nuisances, but I am pleased to report that the necessary work was undertaken at this stage of the proceedings, and the expense of proceedings at law avoided.

Infectious Diseases.—The following list of infectious diseases are notifiable to the Local Authority under the Infectious Diseases (Notification) Act, 1890, viz.:—Small-pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, and the fevers known as Scarlet, Typhus, Enteric, Relapsing, and Puerperal, and full particulars will be found in the statistics furnished by your Medical Officer of Health as to the Notifications made, but the most prevalent have been Enteric Fever, Scarlet Fever and Diphtheria.

Every precaution has been taken to prevent the spread of infectious diseases, and no serious epidemic stage was reached by anyone of the diseases notified, with, perhaps, the exception of the outbreak of Scarlet Fever at Netherwitton.

When it was found that the disease remained active in the village, and was spreading to the surrounding neighbourhood, a thorough inspection was made, and enquiries pointed to a want of disinfection, and notices were promptly served for such purpose, and when this work had been done, the disease died out.

Together with the above mentioned notices, disinfection has been carried out in thirteen cases of Infectious Diseases.

Slaughter Houses, etc.—The sanitary arrangements of the various Slaughter Houses, Cow Byres, and the Factory, Workshops, and Workplaces within your District, are in a satisfactory condition, and a register of the Factory and Workshops is now kept.

Scavenging.—The contract work of scavenging, undertaken by the Council, has been thoroughly carried out, and, owing to a better supervision given to the work, no complaints have been received as was the case in the preceding year, when, in addition to the ashpits being full, very often as much as six loads of refuse were allowed to accumulate on the adjacent ground.

The scavenging done by private owners, however, calls for much attention, to obtain the necessary cleansing, and in this respect, thirty-three formal notices have been served.

Sanitary.—The following improvements have been obtained to dwelling houses, etc., viz.:—

FENROTHER.—New drainage system with outfall and land treatment for sewage,

HEPSCOTT.—House drainage, new privy, and ashpit accommodation.

LONGHORSLEY.—New privies and outhouses at View Law, and new drainage system to Public House, and the erection of privies.

MIDDLETON.—Erection of a urinal at the Public House.

NETHERWITTON.—New ashpit and privy accommodation fitted with loose receptacles.

ULGHAM.—New drainage to all buildings and settling tank at Grange Cottages. Diversion of drain from outfall into roadside ditch, to a cesspool in field.

Engineering.—Repairs to existing ashpits, privies and drains.

The sewage disposal work undertaken at Red Row and Woodhorn continue to give satisfaction, and the self-cleansing apparatus fitted to the Red Row Works has acted well, the only expense incurred has been in connection with the catch pit and sludge lagoon, which have to be cleared by manual labour, and which has cost altogether the small sum of seven shillings.

Certain back streets at Red Row were complained of as impassable, and, on the instructions of the Council, plans and specification were prepared, and an application made to the Local Government Board, for Urban Powers for that portion of your District, in order to apply Section 150 of the Public Health Act, 1875.

After the expiration of the necessary notices, the work of paving the streets was done and the cost apportioned upon the owners of the property abutting on the streets. This work, which greatly improves the sanitary condition of the District in that part, has given entire satisfaction, and the expenditure, advanced in the first case by the Council, has been re-paid by owners of the property effected. The total cost of the work, plus five per cent. charges, was £440 2s. 7d.

The main sewer was extended at Longhorsley, for the better and more adequate drainage of certain dwelling houses and a byre at a cost of £6 10s.

In compliance with the notice served upon this Council by the County Authority, for the prevention of the Pollution of the Steads Burn at Widdrington Colliery, plans, sections, and an estimate of the cost, has been prepared for a proposed scheme of sewerage and sewage disposal, and an application has been made to the Local Government Board for a loan to carry out the work.

It is proposed to make that part of the Township of Widdrington known as Widdrington Colliery, into a contributory place, for the purpose of the scheme, and within this proposed area, there are eighty-nine dwelling houses, schools, chapel, and the colliery buildings, with an estimated population of 445, and the existing drainage system consists of open channel half pipes, laid down the rear of the dwellings, and discharging the sewage directly into the Burn. The proposed scheme consists of six and nine inch pipes, laid to suitable depths, with manholes and flush tank. The sewage will be conducted to a Septic tank for primary treatment, and then distributed over a continous Filter for the final process of purification before it is discharged into the Burn.

Building Bye-Laws.—The buildings proposed to be erected and those approved of, have been strictly watched, to secure a full compliance with the Bye-laws. In all, thirty-two plans were submitted, and of this number, thirty were approved of.

I am, Gentlemen,

Yours obediently,

ANDREW ADAMS,

Sanitary Surveyor.